

REMARKS

In the Office Action mailed on July 3, 2007, the Office took the following action:

(1) objected to the drawings; (2) rejected claims 8 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite; (3) rejected claims 1-3, 5, 8-9, 12-14, 16, and 19-20 under 35 U.S.C. §102(b) as being anticipated by Selig et al., U.S. Patent No. 6,492,978 (hereinafter “Selig”); (4) rejected claims 1-3, 5-6, 8, 10, 12-14, 16-17, 19, and 21 under 35 U.S.C. §102(b) as being anticipated by Kraus et al., U.S. Patent No. 6,776,546 (hereinafter “Kraus”); (5) rejected claims 4, 7, 15 and 18 under 35 U.S.C. §103(a) as being unpatentable over Selig in view of Hanson et al., U.S. Patent No. 7,079,119 (hereinafter “Hanson”); and (6) rejected claims 11 and 22 under 35 U.S.C. §103(a) as being unpatentable over Selig in view of Nasu, U.S. Patent No. 7,116,313 (hereinafter “Nasu”). Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following remarks.

Drawing Objection

The Office objected to claims 7-8 and 18-19 because the drawings must show every feature of the invention specified in the claims. More specifically, the "lighting device" of claims 7 and 18 and the "device to change a direction of a beam directed on to the device" of claims 8 and 19 must be shown or the features canceled from the claims.

Replacement formal drawings are filed concurrently herewith, in which Applicant has corrected the informalities noted by the Examiner. Specifically, Applicant has provided Figure 1a which includes the lighting device 109 (including the LED 111 and power source 113) and the redirector 115 positioned over the infrared port 117. In addition, Applicant has provided elements 301 and 303 in Figure 3, *sua sponte*, to place

1 the drawings in compliance with the MPEP, such that the drawings show every feature of
2 the invention specified in the claims. No new matter has been added in any of the
3 aforementioned amendments. The specification has been amended to include references
4 to the aforementioned elements. Therefore, Applicant respectfully requests
5 reconsideration and withdrawal of the objection to the drawings.

6

7 **Rejections under 35 U.S.C. §112, Second Paragraph**

8 The Office rejected claims 8 and 19 under 35 U.S.C. §112, second paragraph, as
9 being indefinite. More specifically, the Office stated the phrase “a device to change a
10 direction of a beam directed onto the device” is not distinct and indefinite.

11 Applicant has amended claim 8 to more specifically claim the intended subject
12 matter. The amendments are supported at least by paragraph 0028 on page 9 of the
13 specification and Figure 1a. Claim 19 has been canceled. Therefore, Applicant
14 respectfully requests reconsideration and withdrawal of the rejection to claims 8.

15

16 **Rejections under 35 U.S.C. §102(b)**

17 The Office rejected claims 1-3, 5, 8-9, 12-14, 16, and 19-20 under 35 U.S.C.
18 §102(b) as being anticipated by Selig and rejected claims 1-3, 5-6, 8, 10, 12-14, 16-17,
19 19, and 21 under 35 U.S.C. §102(b) as being anticipated by Kraus. Applicant
20 respectfully traverses.

21 Selig generally pertains to a keyscreen for providing a keypad over a touchscreen.
22 (Abstract). The keypad may include numbers or selectors to facilitate input to the
23 touchscreen. (Figures 1-2).

1 Kraus generally pertains to a keyboard overlay with a touch sensitive display
2 screen. (Abstract). The overlay may be opaque or transparent. (*Id.*). In addition, the
3 overlay may be detectable by another device by an output component. (Summary).

4 **Claims 1-3, 5-6, and 8-10**

5 Claim 1, as amended, recites:

6 An apparatus, comprising:

7 a membrane including a fiber optic plate configured to direct light
8 from a first side of the membrane to a second side opposite the first side,
the first side positioned adjacent to a touchscreen display;

9 a button structure disposed on the second side of the membrane;
and

10 a nib corresponding to the button structure and disposed on the
first side of the membrane, wherein the apparatus is configured to be
11 operatively coupled to the touchscreen display so that when a user applies
a force to the button structure the nib contacts the touchscreen display so
as to activate a virtual button being displayed by the touchscreen display.

12 Both Selig and Kraus fail to disclose “a fiber optic plate configured to direct light
13 from a first side of the membrane to a second side opposite the first side,” as recited by
14 Applicant. In the present Office Action, the Office relies on Hanson as teaching “the
15 overlay can be formed out of a light guide which is a directional light pipe or fiber optic
16 plate (Fig. 5, element 56; col. 6, line 46 – col. 7, line 4).” (Office Action, page 8,
17 paragraph 5, line 5-7). Hanson generally pertains to a cover for an electronic device
18 having a light guide. (Summary). The light guide 56, as described in Hanson, is *not* a
19 flexible membrane that enables buttons with nibs to interact with a touchscreen.

20 Hanson discloses the light guide as follows:

21 Light guide 56 may be made from polymethyl methacrylate
22 (acrylic), polycarbonate, or other materials suitable for use as light guides,
23 and may include microstructures or prisms that direct light away from the
surface of the light guide. In an exemplary embodiment, the
24 microstructures are arranged toward the top surface of light guide 56. In
this embodiment, a space is provided between light guide 56 and touch

1 panel 60 to prevent damage to the microstructures. In an alternative
2 embodiment, the microstructures may be arranged toward a bottom
3 surface of the light guide. In this embodiment, the light guide and touch
4 panel may be positioned directly adjacent or in contact with each other.

5 (Hanson, col. 6, line 60 to col. 7, line 4). As disclosed, the purpose of the light guide is to
6 enable lighting of the touchscreen, rather than for providing a technique to facilitate
7 touching the touchscreen via buttons with nibs, as provided by Applicant. In addition and
8 more importantly, the light guide is described as a substantially rigid material (e.g.,
9 polymethyl methacrylate) that may be spaced “to prevent damage to the microstructures.”
10 The aforementioned description teaches away from the *flexible membrane* that physically
11 interacts with the touchscreen, as recited by Applicant. Thus, no motivation exists to
12 combine Hanson with Selig (or Kraus) because Hanson’s protective light guide teaches
13 away from Applicant’s flexible membrane.

14 Claims 2-3, 5-6, and 8-10 depend from claim 1, and thus are believed allowable at
15 least for their dependency on the allowable base claim 1. Further, the additional
16 limitations in these dependant claims provide limitations which are not taught by the
17 cited reference. Although all dependant claims may recite limitations not disclosed by
18 Selig and/or Kraus, only one dependant claim is discussed below for sake of brevity.

19 Applicant’s amended claim 8 recites, “a redirector to change a direction of an
20 infrared beam directed onto the redirector.” In the Office Action, the Office relies on
21 Selig and Kraus as each independently disclosing “a device to change the direction of a
22 beam,” as originally presented in claim 8. With regard to Selig, the Office notes “the
23 printed text on the keypad overlay would change the direction of light shining onto the
24 button to be reflected back to the viewer.” (Office Action, page 5, line 6-8). With regard
25 to Kraus, the Office states, “If the device is opaque light beams directed onto the device
will be reflected back to a viewer.” (Office Action, page 7, lines 10-11).

1 Applicant respectfully submits that both Selig and Kraus fail to disclose “a
2 redirector to change a direction of an infrared beam directed onto the director,” as recited
3 in amended claim 8. As amended, claim 8 more specifically recites Applicant’s intended
4 subject matter. Neither Selig nor Kraus disclose a redirector. More specifically,
5 redirecting an infrared beam is not disclosed in Selig or Kraus. Therefore, Applicant
6 respectfully requests reconsideration and withdrawal of the rejections to claims 1, 2-3, 5-
7 6, and 8-10.

8 *Claims 12-14, 16-17, and 19-21*

9 Claim 12, as amended, recites:

10 An apparatus to be operatively coupled to a touchscreen display for
11 operating a virtual button displayed by the touchscreen display, the
12 apparatus comprising:

13 a membrane; and

14 tactile means, coupled to the membrane, for selectively contacting
15 a touchscreen display at a desired location in response to a force exerted
16 on the tactile means by a user, wherein the tactile means further includes a
17 means for slidably contacting the touchscreen display along a pre-
18 determined linear slot.

19 Applicant submits that the cited references do not disclose “means for slidably
20 contacting the touchscreen display along a pre-determined linear slot,” as recited in claim
21 12. In the Office Action, the Office relied on Nasu as teaching this recitation in
22 association with claim 11.

23 Nasu generally pertains to an operation device for operating an electronic
24 apparatus. (Abstract). Nasu includes a control knob 19 with a switch 16. (Nasu, col. 3,
25 lines 5-19) The control knob is constrained by an opening 12A in the case 12. (*Id.*).
Nasu discloses, “the size of the opening 12A may be determined depending on a signal
change according to the movement on the touch panel 15, as explained later in detail.”
(Nasu, Col. 3, lines 12-14). However, Nasu *does not* explicitly explain the size in more

1 detail as indicated in the above excerpt. Nasu does disclose, "As the moveable strip 17
2 laterally moves in all directions, the pointer can trace any desired curve as well as a circle
3 and a straight line. (Nasu, Col. 3, lines 57-59). However, here Nasu is discussing the
4 floating moveable strip 17, which is not constrained by the opening 12A, and thus does
5 not constrain the movement of the pointer. In fact, the moveable strip only facilitates
6 movement of the pointer rather than constrains this movement. As such, Nasu does not
7 disclose "a pre-determined linear slot." The pre-determined linear slot has many
8 practical applications as configured with the membrane recited in claim 12. For example,
9 the pre-determined slot may to move a scroll panel or volume control represented on the
10 touchscreen.

11 Claims 13-14 and 16-17 depend from claim 12, and thus are believed allowable at
12 least for their dependency on the allowable base claim 12. Claims 19-21 have been
13 canceled. Therefore, Applicant respectfully requests reconsideration and withdrawal of
14 the rejections to claims 12-14 and 16-17.

15

16 **Rejections under 35 U.S.C. §103(a)**

17 The Office rejected claims 4, 7, 15 and 18 under 35 U.S.C. §103(a) as being
18 unpatentable over Selig in view of Hanson and rejected claims 11 and 22 under 35 U.S.C.
19 §103(a) as being unpatentable over Selig in view of Nasu. Applicant respectfully
20 traverses.

21 Claims 4, 7, and 11 depend from claim 1, and thus are believed allowable at least
22 for their dependency on the allowable base claim 1. Claims 15 and 18 depend from claim
23 12 are believed allowable at least for their dependency on the allowable base claim 12.
24 Further, the additional limitations in these dependant claims provide limitations which are
25

1 not taught by the cited references. Although all dependant claims may recite limitations
2 not disclosed by Selig, Kraus, Hanson, and/or Nasu, only one dependant claim is
3 discussed below for sake of brevity.

4 Applicant's claim 4 recites, "the button structure is configured as a remote
5 control." The cited references fail to recite a remote control configuration. Although
6 Kraus discloses a QWERTY configuration of a keyboard, this is not a remote control
7 configuration as described by Applicant. In addition, Selig discloses a numeric pad in
8 Figure 1, but again, fails to disclose a remote control configuration. Hanson and Nasu
9 also fail to disclose a remote control configuration. Therefore, Applicant respectfully
10 requests reconsideration and withdrawal of the rejections to claims 4, 7, and 11, 15, and
11 18.
12

13 **New Claims**

14 Claim 23 recites:

15 A display overlay, comprising:
16 a flexible membrane;
17 a button structure disposed on one surface of the flexible
membrane;
18 a nib corresponding to the button structure and disposed on another
surface of the membrane, wherein the apparatus is configured to be
operatively coupled to a the touchscreen display so that when a user
applies a force to the button structure the nib contacts the touchscreen
display so as to activate a virtual button being displayed by the
touchscreen display; and
20 a redirector coupled to the flexible membrane, the redirector
configured to change a direction of an infrared beam directed onto the
redirector.

22 Applicant relies on the same reasoning as presented above regarding claim 8 in
23 support of newly presented claim 23. More specifically, Applicant submits that the
24
25

1 referenced relied upon by the Office do not teach or suggest the “redirector” as recited in
2 claim 23.

3 Claims 24-26 depend from claim 23, and thus are believed allowable at least for
4 their dependency on the allowable base claim 23. Further, the additional limitations in
5 these dependant claims provide limitations which are not taught by the cited references.
6 Claim 24 recites, “the button structure includes buttons configured as a remote control.”
7 As discussed above, Applicant submits that Selig, Kraus, Hanson, and Nasu, either singly
8 or in combination, assuming *arguendo* that such combination is proper, fails to disclose a
9 button structure configured as a remote control. Similarly the cited references fail to
10 disclose, “the button structure includes buttons configured as at least one of a universal
11 remote control or a television remote control,” as recited in claim 25. Claim 26 includes
12 recitations that further define the redirector by reciting “a fiber optic plate with a bend in
13 optical fiber segments.” Applicant submits that the cited references fail to disclose
14 redirecting the infrared beam using a fiber optic plate with a bend.” Therefore, Applicant
15 respectfully requests favorable consideration of the newly presented claims.
16
17
18
19
20
21
22
23
24
25

Conclusion

Claims 1-18 and 23-26 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. If there are any remaining matters that may be handled by telephone conference, the Examiner is kindly invited to telephone the undersigned.

Respectfully Submitted,

Date: Nov 1, 2007

By: Damon J. Kruger
Damon J. Kruger
Lee & Hayes, PLLC
Reg. No. 60,400
(206) 315-7918

Enclosure(s)

Formal Replacement Drawings